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Financial and ESG reporting in times of uncertainty

Sprawozdawczość finansowa i sprawozdawczość ESG w czasach niepewności

Beata Zyznarska-Dworczak*

Abstract

Purpose: The paper aims to explore how financial and ESG reporting have changed under the influence of rising economic and business uncertainty and how these changes may influence corporate accountability.
Methodology/approach: The main research method is the extensive literature review. For inference, the methods of analysis and synthesis are used.
Findings: The paper is based on positive and normative approaches. The positive approach reveals the key corporate reporting changes in times of uncertainty, analyzed in the light of the legitimacy theory and stakeholder theory. The paper indicates how different levels of uncertainty (economic policy uncertainty, business uncertainty, accounting uncertainty, audit uncertainty, uncertainty in ESG performance, and ESG assurance) can influence corporate reports and thus cause a significant change in corporate accountability. The proposed normative approach assumes that corporate reporting will become more accountability-based, depicting the uncertainties at their different levels, which should be supported by reporting companies, controllers, and regulators.
Originality/value: Since limited studies exist that focus on corporate reporting in times of uncertainty, the paper fills the gap. The paper contributes to the understanding of the significance of uncertainty in corporate reporting and its influence on accountability, thus offering findings that are potentially useful for both theory and practice.
Keywords: accountability, accounting, COVID-19, ESG, financial reporting, inflation, pandemic, sustainability, war, uncertainty.

Streszczenie

Cel: Artykuł ma na celu zbadanie, jak sprawozdawczość finansowa i sprawozdawczość ESG zmieniły się pod wpływem rosnącej niepewności ekonomicznej i biznesowej oraz jak te zmiany mogą wpływać na proces rozliczalności organizacji.
Metodyka/podejście badawcze: Główną metodą badawczą jest obszerny przegląd literatury. W artykule zastosowano metody analizy i syntezy.
Wyniki: Artykuł jest oparty na pozytywnym i normatywnym podejściu. W ujęciu pozytywnym w artykule zostały ukazane kluczowe zmiany w sprawozdawczości przedsiębiorstw

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w czasach niepewności, analizowane w świetle teorii legitymizacji i teorii interesariuszy. Wskazano, w jaki sposób różne poziomy niepewności (niepewność polityki gospodarczej, niepewność biznesowa, niepewność księgowa, niepewność wyników ESG i niepewność atestacji wyników ESG) mogą wpływać na raportowanie korporacyjne, a przez to na proces rozliczalności organizacji. Proponowane podejście normatywne do raportowania zakłada, że sprawozdawczość przedsiębiorstw ma przekształcić się w model bardziej oparty na rozliczalności, obrazujący niepewności na ich różnych poziomach, co powinno być wspierane przez organizacje raportujące, kontrolerów i regulatorów.
Oryginalność/wartość: Z uwagi na brak wyczerpujących badań w przyjętym obszarze badawczym artykuł uzupełnia tę lukę. Artykuł przyczynia się do zrozumienia znaczenia niepewności w sprawozdawczości przedsiębiorstw i jej wpływu na rozliczalność organizacji, oferując tym samym wnioski, które mogą być potencjalnie przydatne zarówno dla teorii, jak i praktyki.
Słowa kluczowe: rozliczalność, rachunkowość, COVID-19, ESG, sprawozdawczość finansowa, inflacja, pandemia, zrównoważony rozwój, wojna, niepewność.

Introduction

Uncertainty and unpredictability – which refer to economic policy uncertainty, as well as the environment in which a company operates – are the main characteristics of a crisis. It may redefine the main corporate goals, with a greater focus on providing financial security, sometimes overlooking other business objectives, like sustainable development. However, recent crises (like the COVID-19 pandemic, Russia's invasion of Ukraine, increasing inflation, and cyber-attacks) have highlighted the need for a resilient economy and business, in particular, the need to strive for corporate sustainability. The current situation has increased the awareness of accountability and sustainability in corporate decision-making and efficient risk management, contributing to the fact that corporate reports are expected to be a transparent basis for accountability.

Corporate financial reporting and ESG (environmental, social, and governance) reporting, as the main forms of communicating corporate achievements, are expected to accurately present all material risks and uncertainties. However, in times of uncertainty, an unpredictable and unstable future makes assumptions in corporate reports much riskier. Moreover, such a crisis creates a higher risk of manipulation in corporate reporting (ACFE, 2022; Chen et al., 2022; Hsu, Yang, 2022; Levi et al., 2021). So, uncertainty in business and greater uncertainty in financial and ESG reporting may limit stakeholders' trust in the presented public results, thus hindering the effectiveness of the corporate accountability process.

This paper explores how financial and ESG reporting have changed under rising economic and business uncertainty and how these changes may influence corporate accountability. The main research method is an extensive literature review, while for inference, the methods of analysis and synthesis are used. Since limited studies exist that focus on corporate reporting in times of material uncertainty (Abhayawansa, Adams, 2022; Baldi, Pandimiglio, 2022; Dyczkowska et al., 2022; Hsu, Yang, 2022; de Villiers, Molinari, 2022), the paper fills the gap. By analyzing these aspects, this conceptual paper makes three main contributions from theoretical, practical, and methodological perspectives:

(1) it reveals the impact of uncertainty on financial and ESG reporting and presents new insights into the literature about these issues;
(2) it introduces a new research approach to changes in corporate reports in times of uncertainty and their impact on accountability;
(3) it proposes a normative approach to financial and ESG reports to support accountability.

The paper is based on a positive and normative approach. It reveals the key corporate reporting changes in times of uncertainty, analyzed in the light of the stakeholder theory and legitimacy theory, and treats the organization as part of a broader social system wherein the organization impacts, and is impacted by, other groups within society (Deegan, Blomquist, 2006). The paper indicates how different levels of uncertainty (economic policy uncertainty, business uncertainty, accounting uncertainty, audit uncertainty, uncertainty in ESG performance, and ESG assurance) may influence corporate accountability. The proposed normative approach assumes that corporate reporting will become a more accountability-based model, depicting uncertainties at different levels. It should be supported by three streams (reporting companies, controllers, and regulators).

This study directs the attention of accountants, auditors, stakeholders, and standard setters to the required changes and revisions in corporate reporting, audit procedures, and investment decisions. The paper contributes to the understanding of the significance of uncertainty in corporate reporting and its influence on accountability, thus offering findings that are potentially useful for both theory and practice.

The study is structured as follows: the first part of the paper presents uncertainty in accounting and financial statements, while the second part looks at uncertainty in ESG reporting. The third part of the paper indicates the changes in corporate reporting in today's unstable times, while the fourth part indicates the implications of uncertainty in corporate reporting in a normative approach. The final section of the paper provides the main conclusions and the study's limitations, and indicates an avenue for future research.

1. Uncertainty in accounting and financial reporting

Uncertainty is an intrinsic component of the economic environment; thus, it is an inherent part of the business. Uncertainty is caused by any event that a company is not able to anticipate or directly influence, which may lead to negative outcomes as a result. So, it means a state of limited knowledge or no means to predict the future outcome. Uncertainty cannot be measured since there is no detailed information to assess and determine the probability, while the risk is measurable through the determination of the probability of each output (Rowe, 1994). So, there is a distinct difference between risk and uncertainty, which results in companies having the ability to insure against risks, but not against uncertainties.

Financial statements, as a domain of professionally confirmed facts, includes little room for communicating uncertainty – not only in estimates but also in the accounting narrative presented in the management report (Klimczak et al., 2016). Uncertainty is not communicated directly, because it would be against the rules of the genre (Klimczak et al., 2016). Nevertheless, corporate reporting, as a picture of the company's performance, may embody metrical uncertainty and variability in measurement, structural uncertainty due to the complexity of operations, temporal uncertainty in future and past states, as well as translational uncertainty in explaining uncertain results (Rowe, 1994). Investors, financial statement preparers, and auditors should provide input about those measurements and associated disclosures where the outcome depends on future events that, by definition, are presently unknown. Since the level, range, and sources of uncertainty are still changing, challenges may exist (SEC, 2021):

- financial statement preparers are expected to estimate the future financial and non-financial outcomes of the uncertainties inherent in many business transactions,
- auditors are expected to verify the subjective judgments about those uncertainties – both in financial audit and sustainability assurance, and
- investors are expected to understand those uncertainties and assess their potential impact on future earnings, cash flows, as well as sustainability achievements.

According to Lau (2021), the use of estimates can enhance the decision usefulness of accounting information, as well as it can also induce measurement uncertainty and management bias in financial reporting. Some research indicates significant management bias and earnings management opportunism around the discretionary inputs of estimates (see, e.g., Du et al., 2014; Lau, 2021; Reber et al., 2021). Therefore, many accounting standards have attempted to increase transparency, indicating that disclosures are necessary to understand measurement uncertainty. The Conceptual Framework for Financial Reporting issued by the International Accounting Standards Board (2018) relates 83 times to "uncertainty", mainly in the context of existence uncertainty, outcome uncertainty, and measurement uncertainty. The Framework states that in some cases, it is uncertain whether a right (obligation) exists; thus, it is uncertain whether an asset (liability) exists (par. 4.13, par. 4.35). In other words, existence uncertainty arises when it is uncertain whether an asset or a liability exists. Outcome uncertainty arises when there is uncertainty about the amount or timing of any inflow or outflow of economic benefits resulting from an asset or liability (par. 6.61). In turn, measurement uncertainty arises when monetary amounts in financial reports cannot be observed directly and must instead be estimated. Nevertheless, even a high level of measurement uncertainty does not necessarily prevent such an estimate from providing useful information (par. 2.19). In some cases, the most useful information may be the highly uncertain estimate, accompanied by a description of the estimate and an explanation of the uncertainties that affect it (par. 2.22). Thus, uncertainty is inherent in accounting. Various accounting treatments incorporate uncertainty, like

- financial assets reflected at estimated fair value,
- certain guarantees measured based on probability-weighted expected future outcomes, and
- financial assets measured at present value based on discounted future cash flows regardless of the certainty of those cash flows.

Consequently, financial statements are perfectly comparable under ideal conditions (Dhole et al., 2021), which provokes criticism of estimations in accounting. The critical debate on the usefulness of fair value accounting and other treatments has arisen in connection with the financial crunch and economic crisis between 2007 and 2009. Nevertheless, opponents still do not offer any functional alternative (Procházka, 2011). The main criticism is that uncertainty expressions often lack consistent meanings, and such inconsistencies reduce the comparability between companies' financial statements (Simon, 2010).

Furthermore, a company's approach to uncertainty in accounting is influenced by many factors. Some research has demonstrated that economic policy uncertainty affects accounting quality, which is paid by market participants (El Ghoul et al., 2021). Financial statement comparability is negatively associated with economic policy uncertainty (Dhole et al., 2021). Nevertheless, high accounting quality can mitigate the negative effects of uncertainty on corporate investment and valuation (El Ghoul et al., 2021). High economic policy uncertainty will transmit less new information to firms, which can motivate managers to influence accounting numbers toward the desired financial reporting outcome (Ozili, 2020). Moreover, there is a strong relationship between uncertainty avoidance and materiality accounting judgments by taking into account contextual factors such as the political, economic, social, and historical environments, as well as accountants' professional work experience (Heidhues, Patel, 2012; Zyznarska-Dworczak, 2020; Zyznarska-Dworczak et al., 2020).

2. Uncertainty in ESG reporting

One of the major challenges in the sustainability system is the problem of uncertainty. Some examples of uncertainties in sustainability include defining and quantifying various objectives, impact assessment methods, and models, as well as forecasting future and unexpected events (Diwekar, 2021). Thus, in a sustainability assessment framework, the main sources of uncertainty can be (Ciuffo et al., 2012):

- the concept of sustainable development and the definition of the physical, economic, and social boundaries to assess it,
- the intrinsic subjectivity of many assessment tools, and
- the incapability of many available modeling activities to mimic our world.

To deal with them, it is necessary to identify a suitable conceptual framework able to guide analysts through a path aimed at increasing their ability to understand the main drivers of their analysis (Ciuffo et al., 2012).

ESG reporting is also influenced by several community environmental quality problems and the formulation of problems viewed from the perspectives of different stakeholders (Diwekar, 2021):

- industry stakeholders, whose primary objective is usually economic optimization within environmental regulation standards;
- communities, which seek to balance socioeconomic welfare through access to jobs while reducing associated environmental contaminants;
- more affluent communities, which would rather have polluting industries removed or distanced from their communities to optimize environmental quality and public health;
- government agencies, whose primary objective is to administer regulations at the nexus of these competing demands.

These multi-criteria objectives bring uncertainty to ESG disclosure. Therefore, uncertainties are associated with each performance measure, and deciding the weights for different objectives presents significant uncertainties in solutions (Diwekar, 2021). When things are uncertain, managers with different reporting objectives can hide behind each other's identities to selectively provide disclosure (Einhorn, 2007), and more written narratives may increase the risk of manipulation (see, i.e., Balata, Breton, 2005; Leung et al., 2015; Masztalerz, 2016). Moreover, there is a considerable lack of consistency, as a multitude of frameworks, protocols, standards, and formats exist, and indeed companies often develop their own (Kaplan, Stroehle 2021). While standard-setters continue to develop options to ensure the comparability and transparency of ESG disclosures, managers already need to strengthen investor confidence. The call by investors for consistent and comparable metrics is consistent with the desire to make things simpler. However, sustainability issues are complex, interconnected, dynamic, and uncertain (Adams, Abhayawansa, 2022).

ESG reporting is essential for long-term stakeholders' wealth maximization under uncertainty (Shaikh, 2021). Some research indicates that environmentally responsible businesses are less exposed to systematic risks (Broadstock et al., 2021; Wellalage et al., 2022). Organizations that face more uncertainty use more non-financial measures because they are likely to facilitate organizational decisions and actions (Hoque, 2005). According to some research, the use of non-financial performance measures leads to improved organizational performance when there is greater environmental uncertainty, even though such measures are more likely to favorably affect performance in situations of higher environmental uncertainty (Hoque, 2005). ESG disclosure is a more consistent proxy for ex-ante uncertainty as an indicator of aftermarket risk, thereby replacing some of the more conventional measures, such as firm age, offered in the existing literature (Reber et al., 2021). Moreover, while policy uncertainty reduces firm performance, sustainability disclosure moderates this destructive impact of policy uncertainty on firm performance (Ahsan et al., 2021), as CSR investments offset the negative impact of economic policy uncertainty on firm financial performance (Rjiba et al., 2020).

So today's crises may increase the need for business settlements that are in line with the concept of accountability and sustainability, thereby increasing the importance of ESG reporting. Nevertheless, the economic and business uncertainty that result from the crises may compound uncertainties in ESG reporting.

3. Impact of the current crisis on corporate reporting – a positive approach

The current crisis is a time of great uncertainty. Nowadays, many companies are dealing with enormous shifts in their regular business models and vast declines in income, with some triaging supply chain distractions and cash shortfalls. Through corporate reports, entities have been expected to explain the following:
- how a crisis has impacted and/or will impact their financial results,
- how the strategy and sustainability goals of the company have been modified to address the effects of a crisis, and
- how to mitigate the impacts of the crisis on the company.

There is an abundance of guidance and commentary from various sources on how to cope with the demands of reporting in times of such great uncertainty – mainly concerning going concern and viability statements, impairment testing, events after the reporting period, and the impact of climate-related matters on financial reporting. Many national accountancy bodies have prepared guidance to support accountants in corporate reporting, in particular, in the assessment of interruptions in or stoppage of production, damage or loss of inventories and other assets, supply-chain and travel disruptions, volatility in commodity prices and currencies, and disruption in banking systems and capital markets (Deloitte, 2022). Despite such great changes in the business environment around the world, there has been no move towards amending accounting standards to deal with changing conditions (there have only been some changes to the leasing standard). This confirms the basic rule of financial reporting, that in each crisis, professional accountants are required to continue applying their standards, ethical values, and social responsibility while taking into account additional risks (Kocmanová et al., 2020; Procházka, 2011).

During a crisis, companies have elevated business uncertainty in terms of going concern due to financial market turmoil, insolvency and financial condition, disrupted supply chains, industrial production interruptions, and workforce shortages. So, the necessary management judgments result in numerous estimates in the financial statements, including:
- going concern, and recognizing the degree of uncertainty;
- accounting estimates and fair value measurements,
- assets impairment and expected credit loss assessments,
- hedge accounting,
- other financial statement disclosure requirements,
- the impact of breaches of covenants and onerous contract provisions also deserves consideration.

Analyzing the empirical research on the changes in corporate reporting (e.g., Abhayawansa, Adams, 2022; Crovini et al., 2022; Dhole et al., 2021; PWC, 2020), changes include:

1) growth in the length of corporate reporting – an attempt to meet new requirements and expectations to report more clearly and more transparently, more disclosures about material uncertainties for going concern;
2) a more formal and comprehensive presentation of stakeholder engagement, in particular, employee relations;
3) small year-on-year improvements in the link between strategy and the various other parts of the report, providing a clearer link between strategy and sustainability (stakeholder reporting, KPIs, business model, sustainability, market insight);
4) a better demonstration of how they have considered the risk (and opportunities) of climate change in their decision-making;
5) dispersion of ESG disclosures across different reports, the lack of disclosures regarding the long-term consequences of the existing crisis, and no indicated solutions for business uncertainty.

The implications of COVID-19 also feature heavily in most companies' annual reports as being related to risk causes, consequences, and controls rather than a standalone principal risk (Marsh, 2022). As the main ESG reporting challenges during the crisis period are related to the fact that crises can change the importance of stakeholder groups (Zharfpeykan, Ng, 2020), it is also uncertain which sustainability activities and disclosures are considered important by investors and other stakeholders. Furthermore, the financial crisis might deprioritize costly environmentally sustainable strategies. The sudden changes might also result in the use of templates or boilerplates, not adapted to the new operating conditions.

The changed business conditions may also be seen in the auditor's duties. Faced with uncertainty in corporate reporting, the auditor should conduct an in-depth identification of business risks and the impact of uncertainty on them, and then address the identified risks with additional procedures. Nevertheless, the COVID-19 social distancing can greatly affect going concern assessment, human capital audits, audit procedures, personnel salary audits, and audit effort, which ultimately can pose a severe impact on audit quality. Auditors have faced new challenges in obtaining sufficient appropriate evidence with no possibility to apply audit procedures, like analyzing original documents, participating in inventories, and direct interviews with management or the chief accountant. To be more adaptable, auditing companies invested more in digital programs, including artificial intelligence, blockchain, network security, and data function development (Albitar et al., 2021).

Despite efforts to adapt corporate reporting to the new uncertain conditions, there is still room for improvement in the quality of disclosures. Some research (e.g., Chen et al., 2022; Hsu, Yang, 2022; Marsh, 2022; Zyznarska-Dworczak, Rudžionienė, 2022) indicates that companies generally performed well in that they provided information that investors generally found useful. Nevertheless, the Irish Auditing and Accounting Supervisory Authorityhas observed diversity in the quality of reporting during the pandemic (IAASA, 2020):

- higher quality disclosures clearly explained to users, in issuer-specific terms, the critical judgments and sources of estimation uncertainty and any sensitivities associated with those judgments;
- lower quality disclosures were characterized by boilerplate references to the pandemic and instances where companies remained silent or vague in explaining some of the key judgments, and there was an absence of issuer-specific information.

The recent evolution in corporate reporting has brought many threats. According to Kizil et al. (2021), the COVID-19 epidemic may be a new arena of financial fraud and an environment ripe for fraud created by ESG pressure (ACFE, 2022). Uncertainty time may be seen as a fraud-related crisis. In particular, financial fraud in the post-pandemic era is becoming more sophisticated and insidious(Zhu et al., 2021). Moreover, the pandemic shocked the global financial system and accelerated digital transformation, bringing stronger motives, more insidious forms, and more intelligent schemes of financial and non-financial fraud (Zhu et al., 2021). Uncertainty time may also favor the practice of greenwashing and the use of boilerplate in ESG disclosure (Baldi Pandimiglio, 2022; Reber et al., 2021). Nevertheless, the scope of ESG fraud is much wider. The fraud tree presented by The Association of Certified Fraud Examiners considers the different aspects of fraud through an ESG lens (ACFE, 2022), like:

- corruption, motivated by conflicts of interest, bribery, illegal gratuities, and economic extortion,
- asset misappropriation, which includes larceny and the misuse of ESG-related inventory and other assets,
- financial statement fraud, through concealed ESG-related liabilities and expenses, overstated ESG-related liabilities and expenses, improper ESG-related asset valuations, and improper disclosures,
- ESG reporting fraud, which includes false labeling or advertising, false disclosure or representation, disingenuous certification of pledges, and a failure to disclose or report.

Against the instances of financial and ESG reporting fraud, the drivers of the need for legitimacy appear to be particularly weak. Thus, disclosing corporate information is not a way to fulfill the organization's social contract"(Zyznarska--Dworczak, 2018b). An organization's legitimacy is, therefore, likely to be challenged when it fails to fulfill its social contract responsibilities, creating a legitimacy gap (Lindblom, 1993). Filling this gap, in line with legitimacy theory, may result from the different motives of the organizations – avoiding political intervention, regulation, and costs (Milne, 2002; Zyznarska-Dworczak, 2018a), as well as a sense of duty and responsibility that builds morality into organizational behavior (Palthe, 2014). It may result from regulatory, cultural, cognitive, organizational, and institutional factors driving the need for legitimacy.

Uncertainty brings a higher risk of misstatement at the financial and ESG reporting level, due to unintentional and deliberate actions. On the one hand, all recent changes and adjustments in corporate reporting may indicate companies' attempts to adapt to new conditions and meet new expectations of stakeholders, which is in line with the basic assumptions of the stakeholder theory. On the other hand, a crisis might pressure some companies to mask the full financial and nonfinancial effects by manipulating disclosures. It creates a credibility gap, which reduces stakeholder trust and hinders accountability. Therefore, in conditions of uncertainty, corporate reports are expected to reduce public concerns and maintain legitimacy even more (de Villiers, Molinari, 2022; Zharfpeykan, Ng, 2020), increasing stakeholders' confidence in the company's performance presented in financial and ESG reports.

4. Implications of uncertainty in corporate reporting – a normative approach

Understanding firm disclosure behavior during the recent crisis provides insights into how firms might respond, providing useful information to stakeholders even though the situation is novel. It also may have important policy implications and may inform regulators on the role they should play in situations that are similar to a more principles-based approach toward disclosure regulation (Chen et al., 2022). In the recent crisis, due to the uncertainty that the parties to an exchange relationship may not behave predictably, a variety of institutional mechanisms, like guarantees, standards, legislation, and regulation, can be initiated to simulate or artificially create trust and predictability (Blois, 1999). Thus, in the current situation, evaluating and interpreting changes in corporate reporting requires that the impact of various levels of uncertainty on the final information presented to stakeholders in corporate reports be considered. The levels of uncertainty, which are inherent and which stem from the recent crisis, are presented in Table 1.

Table 1. The levels of uncertainties – inherent and stemming from the pandemic, war, inflation, and other events

The level of uncertainties	Inherent uncertainty	Uncertainty that stems from the recent crisis
Economic policy uncertainty	– macro-economic uncertainty – policy uncertainty – regulatory uncertainty	– economic recession – rapid climate change – poverty – unstable power supply – the inefficiency of the healthcare system – human rights violation – the global workforce crisis

The level of uncertainties	**Inherent uncertainty**	**Uncertainty that stems from the recent crisis**
Business uncertainty	– commercial uncertainty – client uncertainty – technical uncertainty – employee uncertainty	– financial market turmoil – industrial production interruption – climate change – reduced infrastructure to withstand disasters – mental health problems of employees – low private sector investment – poor financial condition
Accounting uncertainty	– existence uncertainty – outcome uncertainty – measurement uncertainty	– going concern uncertainty – overvaluation in accounting estimates and fair value measurements – inappropriate assets impairment and expected credit loss assessments – distortions of information due to inflation and pricing – incorrect valuation of liabilities – the impact of breaches of covenants and onerous contracts provisions
Audit uncertainty	– uncertainty in the assessment of uncertainty indicated (or not indicated) by the client; – uncertainty in assessing the client's future performance	– the subjective judgments about the uncertainties – lack of experience – high fraud risk – no possibility of applying audit procedures, like analyzing original documents, participating in inventories, or conducting direct interviews with management or the chief accountant – the difficulties in predicting outcomes
Uncertainty in ESG performance and ESG assurance	– uncertainty in the assessment of unmeasurable ESG results; – uncertainty in assessing the implementation of ESG reporting standards and assurance standards	– change the importance of stakeholder groups – climate change – difficulties in estimation of the future uncertain financial and non-financial outcomes, – greenwashing – boilerplates

Source: author's own elaboration.

As presented in Table 1, uncertainty is inherent in the economy and in business, and it may influence corporate reporting at the level of economic policy (e.g., macroeconomic uncertainty, policy uncertainty, and regulatory uncertainty). It may also result from business conditions (e.g., commercial uncertainty, client uncertainty, technical uncertainty, employee uncertainty). These macro and micro factors may influence the uncertainty in accounting and ESG reports, manifesting itself at the accounting level as existence uncertainty, outcome uncertainty, and measurement uncertainty. In turn, at the audit level, it creates uncertainty in the auditor's assessment of these uncertainties. Uncertainty in ESG performance and ESG assurance is mainly due to uncertainty in the assessment of unmeasurable ESG results, as well as uncertainty in assessing the implementation of ESG reporting standards and assurance standards. These inherent uncertainties may be compounded by uncertainties stemming from the pandemic, Russia's invasion of Ukraine, soaring inflation, and other recent world events with a wide global impact on business.

The economic conditions observed during the last crisis, like economic recession, rapid climate change, poverty, unstable power supply, the inefficiency of the health care system, human rights violations, and the global workforce crisis, may severely increase business uncertainty. These circumstances pose a high risk for companies, which must face difficulties like financial market turmoil, production interruption, employee health problems, corporate insolvency, and poor financial condition. This is visible mainly in accounting matters, like going concern uncertainty, overvaluation in accounting estimates and fair value measurements, inappropriate assets impairment and expected credit loss assessments, distortions of information due to inflation and pricing, and incorrect valuation of liabilities. In turn, these judgments and estimates significantly increase the audit risk because of the auditor's lack of experience and high fraud risk. ESG reports and their assurance also have faced barriers, limitations, and constraints in the recent pandemic crisis. The impact of uncertainty on corporate reporting may lower stakeholders' confidence and limit the organization's dialogue with them.

Despite these limitations in dialogue with the stakeholders, various stakeholder groups are demanding a greater range of accountability (Krasodomska, Simnett, Street, 2021). However corporate accountability is a constantly evolving process that aims at a dialogue between the company and various stakeholders and captures a wide range of business activities (Mäkelä, Cho, 2022). In other words, accountability is evolving along with the business environment and the expectations of corporate stakeholders (Zyznarska-Dworczak, 2019). As Figure 1 shows, uncertainty, at its different levels, may, directly and indirectly, influence accountability, and thus it is a crucial determinant.

Figure 1. The impact of uncertainty on corporate reporting and accountability

<table>
<tr><th colspan="9">UNCERTAINTY</th></tr>
<tr><td rowspan="2">Economic policy uncertainty</td><td rowspan="2">=></td><td rowspan="2">Business uncertainty</td><td>=></td><td>Accounting uncertainty</td><td>=></td><td>Audit uncertainty</td><td rowspan="2">Uncertainty in financial and ESG reporting</td></tr>
<tr><td>=></td><td>Uncertainty in ESG performance</td><td>=></td><td>Uncertainty in ESG assurance</td></tr>
</table>

ACCOUNTABILITY

Source: author's own elaboration.

Reporting must adapt to changes in accountability since, in times of uncertainty, companies must act to satisfy stakeholders' expectations and develop a report that is stakeholder-oriented and responds to their information needs (Dyczkowska et al., 2022). Accountability recognizes stakeholder inclusivity as the core principle to enhance accountability and transparency of social practices (Krasodomska, Zarzycka, 2020). Therefore, the recent high volatility in business conditions, including the change in target groups of stakeholders, requires flexible reporting, adapted to new conditions. It also requires regulation to ensure a minimum scope of risk disclosure. From this dualistic approach, it follows that recent calls for corporate accountability are regulatory and issue-specific, while others are concerned with the consequences of human action much more holistically (Mäkelä, Cho 2022).

There are several ways in which companies may respond to the calls for corporate accountability in uncertain times, and corporate reporting is expected to be a tool that demonstrates how to achieve goals while being accountable. Reporting financial and non-financial information is expected to stay relevant in enhancing management's accountability to investors, the wider stakeholder community, and society if they have faith and trust in the assurance and auditing systems in place (Kaplan, Stroehle 2021). The interrelated nature of dynamic risk materiality and dynamic accountability towards a broader group of stakeholders requires that companies adjust their risk management and reporting to respond promptly to evolving scenarios. Such a response to the dynamically shifting materiality of risks will also contribute to enhancing legitimacy (Crovini et al., 2022). Thus, in times of uncertainty, risk management should be redefined based on traditional and ESG-linked parameters to reduce uncertainty and introduce innovation to manage crisis impact. Since risk reporting is incorporated into financial and non-financial reporting, it can become a valuable tool for companies to legitimize their actions and strategic goals during a global crisis.

The strategy to communicate and evidence a long-term time horizon should also be embedded in the risk report as a testament to the long-term sustainability of the business (KPMG, 2021). By externally disclosing more comprehensive risk and uncertainty-related information, a company will increase transparency and improve goal alignment between the organization and its broad set of stakeholders (Epstein, Buhovac, 2006). It is expected to ensure the reliability of the financial and non-financial information presented and continue to be added by transparency.

The indicated premises allows for a normative approach to corporate reporting in the current accountability debate. Therefore, the proposed normative approach assumes that corporate reporting should become a more accountability-based model that the uncertainties at different levels, and it should be supported by three streams (reporting companies, controllers, and regulators). These streams of normative discourse are in line with a normative branch of stakeholder theory, as follows:

1) reporting companies:
   - increase stakeholder engagement to improve risk recognition,
   - improve risk management and risk reporting, including a depiction of uncertainties at different levels (economic policy uncertainty, business uncertainty, accounting uncertainty, audit uncertainty, uncertainty in ESG performance, and ESG assurance),
   - improve performance-based reporting, avoiding boilerplate disclosure and jargon,
   - increase stakeholders' trust through internal and external auditing mechanisms,
   - improve the ethical approach by prohibiting fraud and greenwashing;
2) controllers (regulators, auditors, and creditors):
   - increase monitoring activities to improve report quality in disclosing the impact of uncertainty at various levels of its impact on accountability,
   - ensure the effectiveness of the auditing mechanisms;
3) regulators:
   - build risk-specific strategies in reporting standards for uncertain times, ensuring that the measurement uncertainty issues are appropriately identified, addressed, and verified (by considering the impact of uncertainty at different levels of its impact on accountability).

This normative approach may help corporate reporting to be used in times of high uncertainty as an instrument that supports settlement in the accountability concept. However, changes in corporate reporting should be adjusted to the volatility of accountability. Additionally, social legitimacy, with regulative (have to), normative (ought to) and cognitive (want to) approaches, should be considered to be an input to organizational change along with raw materials and other resources upon which change depends (Palthe, 2014).

Conclusions

Companies operate in a dynamic environment that is influenced by the continually changing decisions of standard-setters, governments, and policymakers. Numerous valuation accounts, allowances, and reserves, as well as estimations of future financial and non-financial outcomes, are based on assumptions and judgments. Thus, uncertainty is inherent in financial statements and ESG reporting. Rising economic and business uncertainty may additionally increase uncertainty in financial and ESG reporting, influencing stakeholder confidence in corporate reports and hindering the accountability process. At the same time, a crisis reveals the need for a resilient economy and business, and thereby for corporate sustainability and accountability to protect the business against future uncertainties. So, in times of uncertainty, corporate reports are influenced by opposing forces, which were presented in this paper from two perspectives – positive and normative.

As demonstrated in the paper, companies have recently tried to adjust their reports to the new uncertain business conditions (by increasing the length of corporate reporting, stakeholder inclusivity, a link between strategy and sustainability, and better risk reporting). These adjustments may be a crucial step toward explaining the results to stakeholders (in line with stakeholder theory), preventing companies from losing their trust, and supporting corporate legitimacy (in line with legitimacy theory). Nevertheless, as concluded in the paper, there is still a legitimacy gap, as well as a credibility gap. According to our research, the recent period of uncertainty is seen as a fraud-related crisis, increasing the risk of fraud in financial and ESG reporting. Companies have not reported information about the long-term effects of the existing uncertainty situation on their future potential, nor have they indicated solutions for this business uncertainty. Certain risks that affect stakeholders, particularly customers and suppliers, have not been well-considered or disclosed, and recent ESG risk disclosures have been revealed in different reports. Thus, the scope and the method of disclosing uncertainty may reduce the reliability of the information and hinder its comparability, reducing its usefulness. Therefore, as a complement to the positive approach, a normative approach to corporate reporting was outlined in the paper.

The paper proposes a normative approach that assumes that corporate reporting will disclose appropriately identified, addressed, and verified uncertainties at its different levels (economic policy uncertainty, business uncertainty, accounting uncertainty, audit uncertainty, uncertainty in ESG performance, and ESG assurance), and thus to transform into a more accountability-based model. This approach recommends three streams of normative discourse: reporting companies, controllers, and regulators. Corporate reporting is also expected to disclose new levels of forward-looking information and risk management, and thus demonstrate long-term decision-making, including consideration of any uncertainty that may pose a threat to business.

This paper has several theoretical and practical implications. It contributes to corporate reporting and accountability research. Previous studies on corporate reporting during a crisis focused on uncertainty in general. This study contributes to that literature by highlighting the key changes in corporate reporting in the recent crisis, considering the impact of uncertainty at its different levels on corporate reporting, and by providing guidelines for more accountability-based reporting. Regarding the practical contribution, the implications for financial and ESG reporting are numerous. The impact of uncertainty on corporate reports may prompt managers to define a more transparency-efficient reporting strategy. Since a greater range of accountability is demanded for a dialogue between a company and its various stakeholders, the normative approach is proposed to address the legitimacy and credibility gaps identified in the study. These managerial implications are connected to the main policy implication and the call for controllers and regulators to adjust reporting policy to make communications more accountable and, in the same way, provide companies with generalized and unambiguous indications for uncertainty reporting. Thus, this study may help researchers, policymakers, and business owners have a deeper understanding of corporate reporting in times of uncertainty. It may direct the attention of accountants, auditors, stakeholders, and standard setters to the required changes and revisions in corporate reporting, audit procedures, and investment decisions.

Like most conceptual studies, the paper has limitations. The positive approach is based on stakeholder theory and legitimacy theory, while other theories, like agency theory, institutional theory, signaling theory, or political cost theory (i.e., Czaja-Cieszyńska et al., 2021; Fernando, Lawrence, 2014; Fernando et al., 2014; Huang, 2021; Milne, 2002; Zyznarska-Dworczak, Rudžionienė, 2022), may make it possible to interpret the influence of recent uncertainty on corporate reporting more broadly. The conducted inference may also be treated as a limitation because it is based on empirical results presented in the literature. However, these limitations may also constitute an area for future research. Other approaches may be conceptualized and empirically tested in the research area, creating an avenue for future research.

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